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Clean Energy Regulator

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1
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NATIONAL GREENHOUSE AND ENERGY REPORTING
SECTION 19 - EMISSIONS AND ENERGY REPORT
WESTERN AREAS LIMITED
FOR THE REPORTING YEAR 2019 – 2020

REPORT UNDER SECTION 19 OF THE *NATIONAL GREENHOUSE AND ENERGY REPORTING ACT 2007*

Corporations registered under Division 3 of Part 2 of the *National Greenhouse and Energy Reporting Act 2007* (the NGER Act) are required to provide a report to the Clean Energy Regulator (the Regulator) by 31 October each year in respect of the previous financial year relating to:

- greenhouse gas emissions; and
- energy production; and
- energy consumption;

from the operation of facilities under the operational control of the corporation and entities that are members of the corporation's group, during that financial year.

A report under section 19 of the NGER Act must be given in a manner and form approved by the Regulator and set out the information specified in the *National Greenhouse and Energy Reporting Regulations 2008* (the NGER Regulations). The report must also be based on the methods, or methods which meet criteria, set out in the *National Greenhouse and Energy Reporting (Measurement) Determination 2008* (the Measurement Determination).

This report is an approved form in which a report under section 19 of the NGER Act may be given to the Regulator.

Giving false or misleading information is a serious offence.

SUBMITTING THE REPORT

The approved manner for submission of the section 19 report is completion and submission of the report in the Emissions and Energy Reporting System.

Your report must be submitted to the Regulator by 31 October 2020.

If a copy of this report is printed in hardcopy form for any purpose it does not represent, nor can it be treated as, an official version of the report submitted to the Regulator.

CONTROLLING CORPORATION DETAILS

Name	WESTERN AREAS LIMITED
Australian Business Number (ABN)	68091049357
Australian Company Number (ACN)	-
Australian Registered Body Number (ARBN)	-
Trading Name	-
Head office postal address:	
Postal address line 1	Level 2
Postal address line 2	2 Kings Park Rd
Postal address line 3	-
Postal city/suburb	WEST PERTH
Postal state	Western Australia
Postal postcode	6005
Postal country	AUSTRALIA
Head office street address:	
Street address line 1	Level 2
Street address line 2	2 Kings Park Rd
Street address line 3	-
Street city/suburb	WEST PERTH
Street state	Western Australia
Street postcode	6005
Street country	AUSTRALIA

EXECUTIVE OFFICER (OR EQUIVALENT) DETAILS

Name	Daniel Lougher
Position	
Phone	08 9334 7777
Mobile	-
Fax	-
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Postal address line 1	PO Box 1891
Postal address line 2	-
Postal address line 3	-
Postal city/suburb	WEST PERTH
Postal state	Western Australia
Postal postcode	6872
Postal country	AUSTRALIA

CONTACT PERSON DETAILS

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Postal address line 2	-
Postal address line 3	-
Postal city/suburb	FREEMANTLE
Postal state	Western Australia
Postal postcode	6160
Postal country	AUSTRALIA

WESTERN AREAS LIMITED EMISSION AND ENERGY REPORT SUMMARY

The table below reports total scope 1 and scope 2 greenhouse gas emissions, energy produced and energy consumed by the corporate group WESTERN AREAS LIMITED for the 2019 - 2020 reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
24,967	45,060	70,027

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
630,528	591,950	38,578

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO2-e)						
Carbon Dioxide CO2	Methane CH4	Nitrous Oxide N2O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF6	Total
24,848	33	82	-	-	4	24,967

WESTERN AREAS LIMITED EMISSION AND ENERGY REPORT DETAIL

Corporate Structure

The table below lists the entities whose greenhouse gas emissions and energy production and energy consumption are included in the S19 report.

No.	Entity Details	Scope 1 Emissions (t CO2-e)	Scope 2 Emissions (t CO2-e)	Energy Consumed Total (GJ)	Energy Consumed Net (GJ)	Energy Produced (GJ)
1	Australian Nickel Investments Pty Ltd Type: Group Member	10,662	-	190,822	152,244	38,578
2	Australian Nickel Investments Pty Ltd Type: Group Member Cosmos Nickel Operations Type: Facility	10,662	0	190,822	152,244	38,578
3	BioHeap Ltd Type: Facility	0	96	499	499	0
4	Forrestania Nickel Operations Type: Facility	13,884	44,906	432,907	432,907	0
5	SA Exploration Type: Facility	421	0	6,000	6,000	0
6	Western Areas Perth Office Type: Facility	0	58	300	300	0

1: AUSTRALIAN NICKEL INVESTMENTS PTY LTD - GROUP MEMBER

Name	Australian Nickel Investments Pty Ltd
Australian Business Number (ABN)	-
Australian Company Number (ACN)	-
Australian Registered Body Number (ARBN)	-
Trading Name	-

The following tables summarise total greenhouse gas emissions and energy data for all facilities that were under the operational control of this group member during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
10,662	-	10,662

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
190,822	152,244	38,578

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO2-e)						
Carbon Dioxide CO2	Methane CH4	Nitrous Oxide N2O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF6	Total
10,613	15	34	-	-	-	10,662

2: COSMOS NICKEL OPERATIONS - FACILITY

Name	Cosmos Nickel Operations
Facility Street Address	50km north of Leinster via Leinster, Mt Keith Road Leinster Western Australia 6437 AUSTRALIA
Geographic Coordinates	Latitude 27.592S / Longitude 120.581E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	080 - Metal ore mining
Operational Control	Australian Nickel Investments Pty Ltd
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2019 - 30/06/2020
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of Australian Nickel Investments Pty Ltd.

GREENHOUSE GAS EMISSIONS (t CO₂-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
10,662	-	10,662

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
190,822	152,244	38,578

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO₂-e)

Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
10,613	15	34	-	-	-	10,662

SCOPE 1 EMISSIONS

EC = Energy Content Factor, Z = Energy Content, EF = Emission Factor

Source Activity	Fuel / Criterion	Quantity	Energy Values (EC & Z)	Gas / Method	Scope 1 Emissions (t CO ₂ -e)
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: A	917.469 kL	EC (GJ/Unit): 38.6 Z (GJ): 35,414	Gas: N ₂ O EF (kg CO₂-e / GJ): 0.2 Method: Method 1	7
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	4
				Gas: CO ₂ EF (kg CO₂-e / GJ): 69.9 Method: Method 1	2,475
Source category:	Fuel / Energy commodity:	238.777	EC	Gas:	644

<p>Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes</p>	<p>Diesel oil - Transport post-2004</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	<p>kL</p>	<p>(GJ/Unit): 38.6</p> <p>Z (GJ): 9,217</p>	<p>CO2</p> <p>EF (kg CO2-e / GJ): 69.9</p> <p>Method: Method 1</p>	
				<p>Gas: N2O</p> <p>EF (kg CO2-e / GJ): 0.6</p> <p>Method: Method 2</p>	6
				<p>Gas: CH4</p> <p>EF (kg CO2-e / GJ): 0.01</p> <p>Method: Method 2</p>	0
<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of petroleum based oils or greases</p>	<p>Fuel / Energy commodity: Petroleum based oils (other than petroleum based oil used as fuel)</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	<p>5.36 kL</p>	<p>EC (GJ/Unit): 38.8</p> <p>Z (GJ): 208</p>	<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 13.9</p> <p>Method: Method 1</p>	3
<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of petroleum based oils or greases</p>	<p>Fuel / Energy commodity: Petroleum based greases</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	<p>3.32 kL</p>	<p>EC (GJ/Unit): 38.8</p> <p>Z (GJ): 129</p>	<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 3.5</p> <p>Method: Method 1</p>	0
Source Total			44,968		3,139
<p>Source category: Fuel combustion</p> <p>Source of emissions: Emissions released from fuel use by certain industries (including electricity generation)</p> <p>Activity type: Electricity production - Liquid fuels</p>	<p>Fuel / Energy commodity: Diesel oil</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	<p>2,776.212 kL</p>	<p>EC (GJ/Unit): 38.6</p> <p>Z (GJ): 107,162</p>	<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 69.9</p> <p>Method: Method 1</p>	7,491
				<p>Gas: N2O</p> <p>EF (kg CO2-e / GJ): 0.2</p> <p>Method: Method 1</p>	21
				<p>Gas: CH4</p> <p>EF (kg CO2-e /</p>	11

GJ):
0.1
Method:
Method
1

Source Total

107,162

7,523

Total

152,130

10,662

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PRODUCING ELECTRICITY								
Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Electricity production - Liquid fuels	Diesel oil	combustion	A	-	2,776.212	kL	38.6	107,162
Total								107,162

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR TRANSPORT									
Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)	
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport post-2004	combustion	A	-	238.777	kL	38.6	9,217	
Total								9,217	

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PURPOSES OTHER THAN PRODUCING ELECTRICITY, PRODUCING A CHEMICAL OR METAL PRODUCT OR FOR TRANSPORT									
Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)	
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	A	-	917.469	kL	38.6	35,414	
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	A	-	5.36	kL	38.8	208	
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	A	-	3.32	kL	38.8	129	
Total								35,751	

ENERGY CONSUMED BY MEANS OTHER THAN COMBUSTION									
Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)	
Energy consumed (not combusted)	Electricity	non-combustion	-	-	38,578	GJ	1	38,578	
Energy consumed (not combusted)	Petroleum based oils (other than petroleum based oil used as fuel)	non-combustion	A	-	2.94	kL	38.8	114	
Total								38,692	

ELECTRICITY PRODUCED					
Activity Type	Usage	Amount	Units	Energy Content Factor (GJ/Unit)	Converted Energy Content Amount (GJ)
Electricity (thermal generation)	For use onsite	10,716,179.825	kWh	0.0036	38,578
Total					38,578

Incidental Emissions and Energy

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

The following tables summarise total greenhouse gas emissions and energy that are incidental to the operation of this facility during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	-	-

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
-	-38,578	38,578

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO2-e)

Carbon Dioxide CO2	Methane CH4	Nitrous Oxide N2O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF6	Total
-	-	-	-	-	-	-

INCIDENTAL ELECTRICITY PRODUCED

Activity Type	Usage	Amount	Units	Energy Content Factor (GJ/Unit)	Converted Energy Content Amount (GJ)
Electricity (thermal generation)	For use onsite	10,716,179.825	kWh	0.0036	38,578
Total					38,578

3: BIOHEAP LTD - FACILITY

Name	BioHeap Ltd
Facility Street Address	3 2 Production Rd CANNING VALE Western Australia 6155 AUSTRALIA
Geographic Coordinates	Latitude 32.066S / Longitude 115.915E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	109 - Other mining support services
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2019 - 30/06/2020
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO₂-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	96	96

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
499	499	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO₂-e)

Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
-	-	-	-	-	-	-

SCOPE 2 EMISSIONS

Activity Type	Quantity	Units	Emission Factor (kg CO ₂ -e / unit)	Scope 2 Emissions (t CO ₂ -e)
Purchase and loss of electricity from main electricity grid in a State or Territory	138,744	kWh	0.69	96
Total				96

ENERGY CONSUMED BY MEANS OTHER THAN COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Purchase and loss of electricity from main electricity grid in a State or Territory	-	-	-	-	138,744	kWh	0.0036	499
Total								499

4: FORRESTANIA NICKEL OPERATIONS - FACILITY

Name	Forrestania Nickel Operations
Facility Street Address	Hyden - Norseman Rd HYDEN Western Australia 6359 AUSTRALIA
Geographic Coordinates	Latitude 32.580S / Longitude 119.737E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	080 - Metal ore mining
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2019 - 30/06/2020
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
13,884	44,906	58,790

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
432,907	432,907	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
13,816	18	46	-	-	4	13,884

SCOPE 1 EMISSIONS

EC = Energy Content Factor, Z = Energy Content, EF = Emission Factor

Source Activity	Fuel / Criterion	Quantity	Energy Values (EC & Z)	Gas / Method	Scope 1 Emissions (t CO ₂ -e)
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of gaseous fuels - Stationary energy purposes	Fuel / Energy commodity: Gaseous fossil fuels other than those mentioned in items 17 to 26 Fuel usage: combustion Criterion: A	0 m ³	EC (GJ/Unit): 0.0393 Z (GJ): -	Gas: - EF (kg CO₂-e / GJ): - Method: -	-
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: AA	4,694.573 kL	EC (GJ/Unit): 38.6 Z (GJ): 181,211	Gas: CO ₂ EF (kg CO₂-e / GJ): 69.9 Method: Method 1	12,667
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	18
					36

				Gas: N2O EF (kg CO2-e / GJ): 0.2 Method: Method 1	
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Fuel / Energy commodity: Liquefied petroleum gas Fuel usage: combustion Criterion: A	17.327 kL	EC (GJ/Unit): 25.7 Z (GJ): 445	Gas: CH4 EF (kg CO2-e / GJ): 0.2 Method: Method 1	0
				Gas: N2O EF (kg CO2-e / GJ): 0.2 Method: Method 1	0
				Gas: CO2 EF (kg CO2-e / GJ): 60.2 Method: Method 1	27
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: BBB	0 kL	EC (GJ/Unit): 38.6 Z (GJ): -	Gas: - EF (kg CO2-e / GJ): - Method: -	-
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Fuel / Energy commodity: Diesel oil - Transport post-2004 Fuel usage: combustion Criterion: AA	413.93 kL	EC (GJ/Unit): 38.6 Z (GJ): 15,978	Gas: CO2 EF (kg CO2-e / GJ): 69.9 Method: Method 1	1,117
				Gas: N2O EF (kg CO2-e / GJ): 0.6 Method: Method 2	10
				Gas: CH4 EF (kg CO2-e /	0

				GJ): 0.01 Method: Method 2	
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Fuel / Energy commodity: Diesel oil - Transport post-2004 Fuel usage: combustion Criterion: BBB	0 kL	EC (GJ/Unit): 38.6 Z (GJ): -	Gas: - EF (kg CO2-e / GJ): - Method: -	-
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of petroleum based oils or greases	Fuel / Energy commodity: Petroleum based oils (other than petroleum based oil used as fuel) Fuel usage: combustion Criterion: A	2.405 kL	EC (GJ/Unit): 38.8 Z (GJ): 93	Gas: CO2 EF (kg CO2-e / GJ): 13.9 Method: Method 1	1
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of petroleum based oils or greases	Fuel / Energy commodity: Petroleum based greases Fuel usage: combustion Criterion: A	2.033 kL	EC (GJ/Unit): 38.8 Z (GJ): 79	Gas: CO2 EF (kg CO2-e / GJ): 3.5 Method: Method 1	0
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of petroleum based oils or greases	Fuel / Energy commodity: Petroleum based oils (other than petroleum based oil used as fuel) Fuel usage: combustion Criterion: BBB	7 kL	EC (GJ/Unit): 38.8 Z (GJ): 272	Gas: CO2 EF (kg CO2-e / GJ): 13.9 Method: Method 1	4
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of petroleum based oils or greases	Fuel / Energy commodity: Petroleum based greases Fuel usage: combustion Criterion: BBB	2.121 kL	EC (GJ/Unit): 38.8 Z (GJ): 82	Gas: CO2 EF (kg CO2-e / GJ): 3.5 Method: Method 1	0
Source Total			198,160		13,880
Source category: Industrial processes Source of emissions: Emissions of hydrofluorocarbons and sulphur hexafluoride gases Activity type: Emissions of sulphur hexafluoride gases from gas insulated switchgear and circuit breaker applications	-	-	-	Gas: SF6 EF (kg CO2-e / GJ): - Method: Other Method	4
Source Total			-		4
Total			198,160		13,884

SCOPE 2 EMISSIONS

Activity Type	Quantity	Units	Emission Factor (kg CO2-e / unit)	Scope 2 Emissions (t CO2-e)
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Purchase and loss of electricity from main electricity grid in a State or Territory	65,080,470 kWh	0.69	44,906
			Total 44,906

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport post-2004	combustion	AA	-	413.93	kL	38.6	15,978
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport post-2004	combustion	BBB	-	0	kL	38.6	0
Total								15,978

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PURPOSES OTHER THAN PRODUCING ELECTRICITY, PRODUCING A CHEMICAL OR METAL PRODUCT OR FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of gaseous fuels - Stationary energy purposes	Gaseous fossil fuels other than those mentioned in items 17 to 26	combustion	A	-	0	m3	0.0393	0
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	AA	-	4,694.573	kL	38.6	181,211
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Liquefied petroleum gas	combustion	A	-	17.327	kL	25.7	445
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	BBB	-	0	kL	38.6	0
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	A	-	2.405	kL	38.8	93
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	A	-	2.033	kL	38.8	79
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	BBB	-	7	kL	38.8	272
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	BBB	-	2.121	kL	38.8	82
Total								182,182

ENERGY CONSUMED BY MEANS OTHER THAN COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Purchase and loss of electricity from main electricity grid in a State or Territory	-	-	-	-	65,080,470	kWh	0.0036	234,290
Energy consumed (not combusted)	Petroleum based oils (other than petroleum based oil used as fuel)	non-combustion	A	-	10.556	kL	38.8	410
Energy consumed (not combusted)	Petroleum based oils (other than petroleum based oil used as fuel)	non-combustion	BBB	-	1.205	kL	38.8	47
Total								234,747

Incidental Emissions and Energy

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

The following tables summarise total greenhouse gas emissions and energy that are incidental to the operation of this facility during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO2-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
4	-	4

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
-	-	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO2-e)

Carbon Dioxide CO2	Methane CH4	Nitrous Oxide N2O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF6	Total
-	-	-	-	-	4	4

INCIDENTAL EMISSIONS

Source of Emissions	Activity Type	Fuel Type Or Energy Commodity	Criterion	Gases	Incidental Emissions (t CO2-e)
Emissions of hydrofluorocarbons and sulphur hexafluoride gases	Emissions of sulphur hexafluoride gases from gas insulated switchgear and circuit breaker applications			SF6	4
Total					4

CONTRACTORS

Name of Contractor	Barmenco Limited
Contractor's Identifying Details	ABN 32 109 439 894 390 Stirling Cres HAZELMERE, Western Australia 6055

CONTRACTOR GREENHOUSE GAS EMISSIONS

Total Greenhouse Gas Emissions (t CO2-e)	8,478
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CONTRACTOR ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed (GJ)	Energy Produced (GJ)
120,751	0

5: SA EXPLORATION - FACILITY

Name	SA Exploration
Facility Street Address	North of Yalata Yalata South Australia 5690 AUSTRALIA
Geographic Coordinates	Latitude 31.356S / Longitude 132.262E
Facility location	-
Activity location	South Australia
Location description	-
Activity description	-
ANZSIC Code	101 - Exploration
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2019 - 30/06/2020
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
421	-	421

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
6,000	6,000	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
419	-	2	-	-	-	421

SCOPE 1 EMISSIONS

EC = Energy Content Factor, Z = Energy Content, EF = Emission Factor

Source Activity	Fuel / Criterion	Quantity	Energy Values (EC & Z)	Gas / Method	Scope 1 Emissions (t CO ₂ -e)
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: A	25.905 kL	EC (GJ/Unit): 38.6 Z (GJ): 1,000	Gas: CO ₂ EF (kg CO₂-e / GJ): 69.9 Method: Method 1	70
				Gas: N ₂ O EF (kg CO₂-e / GJ): 0.2 Method: Method 1	0
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	0
Source category:	Fuel / Energy	129.527	EC	Gas:	2

<p>Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes</p>	<p>commodity: Diesel oil - Transport</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	<p>KL</p>	<p>(GJ/Unit): 38.6</p> <p>Z (GJ): 5,000</p>	<p>N2O</p> <p>EF (kg CO2-e / GJ): 0.5</p> <p>Method: Method 1</p>	
				<p>Gas: CH4</p> <p>EF (kg CO2-e / GJ): 0.1</p> <p>Method: Method 1</p>	0
				<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 69.9</p> <p>Method: Method 1</p>	349
Source Total			6,000		421
Total			6,000		421

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport	combustion	A	-	129.527	kL	38.6	5,000
Total								5,000

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PURPOSES OTHER THAN PRODUCING ELECTRICITY, PRODUCING A CHEMICAL OR METAL PRODUCT OR FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	A	-	25.905	kL	38.6	1,000
Total								1,000

Incidental Emissions and Energy

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

The following tables summarise total greenhouse gas emissions and energy that are incidental to the operation of this facility during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO₂-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	-	-

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
6,000	6,000	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO₂-e)

Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
-	-	-	-	-	-	-

INCIDENTAL ENERGY CONSUMED BY MEANS OF COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	A	-	25.905	kL	38.6	1,000
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport	combustion	A	-	129.527	kL	38.6	5,000
Total								6,000

6: WESTERN AREAS PERTH OFFICE - FACILITY

Name	Western Areas Perth Office
Facility Street Address	Level 2 2 Kings Park Rd WEST PERTH Western Australia 6005 AUSTRALIA
Geographic Coordinates	Latitude 31.953S / Longitude 115.842E
Facility location	-
Activity location	Western Australia
Location description	-
Activity description	-
ANZSIC Code	109 - Other mining support services
Operational Control	WESTERN AREAS LIMITED
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2019 - 30/06/2020
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of WESTERN AREAS LIMITED.

GREENHOUSE GAS EMISSIONS (t CO₂-e)

Scope 1	Scope 2	Total of Scope 1 and Scope 2
-	58	58

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)

Energy Consumed Total	Energy Consumed Net	Energy Produced
300	300	-

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO₂-e)

Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
-	-	-	-	-	-	-

SCOPE 2 EMISSIONS

Activity Type	Quantity	Units	Emission Factor (kg CO ₂ -e / unit)	Scope 2 Emissions (t CO ₂ -e)
Purchase and loss of electricity from main electricity grid in a State or Territory	83,337	kWh	0.69	58
Total				58

ENERGY CONSUMED BY MEANS OTHER THAN COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Purchase and loss of electricity from main electricity grid in a State or Territory	-	-	-	-	83,337	kWh	0.0036	300
Total								300

CORPORATE GROUP THRESHOLD MET

The corporate group of WESTERN AREAS LIMITED has met a corporate group threshold prescribed in sections 13 (1)(a),(b), or (c) of the NGER Act during the reporting year and is reporting under Divisions 4.3 to 4.5 of the NGER Regulations (regulation 4.03).

REPORTING ABOUT INCIDENTAL EMISSIONS AND ENERGY

This Report contains greenhouse gas emissions and energy information from facilities that is incidental to the operation of the facility and reported in accordance with NGER Regulation 4.27.

PRIVACY STATEMENT

PROTECTION OF INFORMATION

The Clean Energy Regulator is bound by the secrecy provisions of Part 3 of the *Clean Energy Regulator Act 2011* (CER Act) in regard to information it collects in relation to this report and also by the *Privacy Act 1988* in regard to personal information it collects.

PRIVACY NOTICE

'Personal information' is defined in the Privacy Act 1988 to mean information or an opinion about an identified individual, or an individual who is reasonably identifiable:

- (a) whether the information or opinion is true or not; and
- (b) whether the information or opinion is recorded in a material form or not.

The collection of personal information relating to this report is authorised by the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) and the National Greenhouse and Energy Reporting Regulations 2008.

Personal information collected in relation to this report will be used for the purposes of assessing the report content, auditing compliance, enforcement of relevant laws and regulations, the performance of our statutory functions and for related purposes. We will also use the personal information which you provide for our administrative purposes, for example, to pre-populate other Clean Energy Regulator forms which you wish to fill out online in the future, and for improving our service delivery to you. We cannot process the application if we do not collect relevant personal information.

The Clean Energy Regulator's Privacy Policy contains information about the agency's procedures for handling personal information including how a person can access their personal information held by the agency, and how to seek correction of such information. The Privacy Policy also contains information about how to complain about a breach of the Australian Privacy Principles. The Clean Energy Regulator's Privacy Policy can be found at www.cleanenergyregulator.gov.au.

DISCLOSURE OF INFORMATION

The Clean Energy Regulator is only able to disclose information relating to this report (including personal information) in accordance with the CER Act, the NGER Act, the Privacy Act 1988 or as otherwise required by law.

The circumstances in which such information may be disclosed include:

- Disclosure to the Secretary or authorised officer of a Department for the purpose of administering a program or collecting statistics relating to greenhouse gas emissions, energy consumption or energy production;
- Disclosure to certain agencies, bodies or persons where the Regulator is satisfied that disclosure will enable or assist those agencies, bodies or persons to perform or exercise their functions or powers, including the Australian Securities and Investments Commission, the Australian Competition and Consumer Commission and the Commissioner of Taxation;
- Disclosure for the purposes of law enforcement;
- Disclosure to States and Territories in accordance with the NGER Act; and
- Disclosure for the purposes of a climate change law or for the purposes of the performance of our functions under a climate change law.

DECLARATION

The Executive Officer (or equivalent), as described in the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), should read the following declaration below before electronically submitting the emissions and energy report.

It is the responsibility of the reporting entity to ensure that the information provided in the emissions and energy report is prepared in accordance with the requirements set out in the NGER Act and the National Greenhouse and Energy Reporting Regulations 2008 (NGER Regulations) and that the data it contains is based on methods prescribed in the National Greenhouse and Energy Reporting (Measurement) Determination 2008 (NGER Measurement Determination).

Under the NGER Act and the NGER Regulations, the reporting entity remains responsible for the truth and accuracy of the contents of the emissions and energy report despite the assistance, if any, of a third party in its preparation.

Section 19 of the NGER Act includes a civil penalty provision, a breach of which may attract a pecuniary penalty of up to 2,000 penalty units. The *Crimes Act 1914* provides that one penalty unit is \$222.

In accordance with section 22 of the NGER Act, a reporting entity is required to keep records of the activities of the members of its group that, inter alia, allow it to report accurately and enable the Clean Energy Regulator to ascertain whether it has complied with its obligations under the NGER Act. Records must be retained for a period of 5 years from the end of the year in which the activities took place. Section 22 includes a civil penalty provision, a breach of which may attract a pecuniary penalty of up to 1,000 penalty units.

By electronically submitting, the signatory declares that:

- they have read and understood the penalties that apply for breaching the NGER Act;
- the information provided in this emissions and energy report (including any attachments) is true and correct, and that they understand that the provision of false or misleading information is a serious offence under the *Criminal Code 1995* and may have consequences under the NGER Act;
- the information provided in this emissions and energy report has been prepared and supplied in accordance with the requirements set out in the NGER Act, the NGER Regulations and the NGER Measurement Determination;
- they are duly authorised to act, including submitting this emissions and energy report, on behalf of the reporting entity;
- the Clean Energy Regulator may compel or conduct an audit of the information contained in this emissions and energy report or in relation to compliance with the NGER Act, the NGER Regulations and the NGER Measurement Determination;
- the Clean Energy Regulator may request further clarification or documentation to verify the information supplied in this emissions and energy report; and
- the entity providing the emissions and energy report and each group member (if any) listed in the report is a body corporate.